

## Introduction to Chapter 7

### Transformations: Revisiting Congruence

Transformations occur in many real-life situations. For instance, they are used in art, architecture, and fabric design to create repeating or symmetrical patterns. Transformations are also used in other mathematical fields. They are used to create computer graphics, and they are used in analytic geometry to reflect and translate the graphs of functions.

Rigid motions in the plane are used widely in many contexts, including computer graphics, industrial design, navigation, air traffic control, art and much more. In addition, these transformations are often a source of simple pleasure, as in computer games such as Tetris, and in the selection of wallpaper patterns.

#### **Part I:**

Define the vocabulary terms and give examples/explanations of each

#### **Part 2:**

Assigned problems demonstrating an understanding of terms and concepts for Chapter 7

#### **Part 3:**

Extension project/paper

#### **Grading:**

Part I: will be entered as an Exploration

Part II: will be entered as Bookwork

Part III: will be graded as an Assessment

**For this unit you will be given a grade for each part I, II and III reflecting your understanding of the material**

Exceeds expectations: 9 or 10

Meets expectations: 8

Meets expectations but work shows that concepts lack understanding or minor components are missing: 7

Unacceptable for grading: 0-6